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PATENT

Atty Docket No.: 200400352-1
App. Ser. No.: 10/830,216IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently Amended) A method of optimizing lifetime of a display, the method comprising:

determining whether to control at least a portion of a display based on a lifetime metric;

identifying a plurality of display control options in response to determining to control the at least a portion of the display; and

selecting at least one of the display control options to control the display;

wherein determining whether to control the display based on a lifetime metric comprises:

a) comparing the lifetime metric to a threshold; and

b) determining to perform the step of identifying a plurality of display control options in response to the lifetime metric exceeding the threshold.

2. (Original) The method of claim 1, further comprising:

implementing the selected display control option to increase a remaining life of the at least a portion of the display.

3. (Original) The method of claim 1, wherein identifying a plurality of display control options comprises:

identifying a plurality of display control options using a usage model.

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4. (Original) The method of claim 1, wherein selecting at least one of the display control options comprises:

selecting at least one of the display control options using at least one of the usage model and a lifetime model.

5. (Canceled).

6. (Original) The method of claim 1, wherein selecting at least one of the plurality of display control options comprises:

evaluating the plurality of display control options; and

selecting the at least one of the plurality of display options based on the evaluation.

7. (Original) The method of claim 6, wherein evaluating the plurality of display control options comprises:

identifying a constraint on implementing any one of the plurality of display control options.

8. (Original) The method of claim 7, wherein the constraint comprises a user acceptance setting.

9. (Original) The method of claim 6, wherein evaluating the plurality of display control options comprises:

determining a lifetime savings for each of the plurality of the display control options.

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10. (Original) The method of claim 6, wherein evaluating the plurality of display control options comprises:

evaluating lifetime metrics and non-lifetime metrics for each of the plurality of display control options; and

ranking the plurality of display control options based on the evaluation.

11. (Original) The method of claim 10, wherein evaluating lifetime metrics and non-lifetime metrics for each of the plurality of display control options comprises:

using at least one of a lifetime model and a usage model to evaluate lifetime metrics and non-lifetime metrics for each of the plurality of display control options.

12. (Original) The method of claim 1, wherein determining a lifetime metric for at least a portion of the display comprises:

determining at least one of past use and predicted future use of the at least a portion of the display.

13. (Original) The method of claim 1, wherein determining a lifetime metric for at least a portion of the display comprises:

using a lifetime model to determine the lifetime metric, wherein the lifetime model includes an estimation of the lifetime of the at least a portion of the display.

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14. (Original) The method of claim 13, wherein the lifetime model comprises a display degradation curve or another similar estimation of remaining lifetime of the display based on past use of the display.

15. (Original) The method of claim 13, wherein using a lifetime model to determine the lifetime metric comprises:

measuring use of the at least a portion of the display; and
applying the measured use to the lifetime model to determine the lifetime metric.

16. (Original) The method of claim 13, wherein using a lifetime model to determine the lifetime metric comprises:

estimating the lifetime costs of applications typically executed on a computer system including the display;

determining properties of screen usage for the display, the display displaying information from the applications;

estimating the use of the at least a portion of the display based on the estimated lifetime costs and determined properties; and

applying the estimated use to the lifetime model to determine the lifetime metric.

17. (Original) The method of claim 1, wherein identifying a plurality of display control options comprises:

analyzing usage of at least one of the display and one or more displays similar to the display;

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determining usage patterns from analyzing the usage; and
analyzing the usage patterns to determine the plurality of display control options.

18. (Original) The method of claim 1, wherein the at least a portion of the display comprises at least one of a sub-pixel, a pixel, and a group of pixels in the display.

19. (Original) The method of claim 1, wherein the plurality of display control options comprise parameters for displaying information on the at least a portion of the display.

20. (Currently Amended) A method comprising:

determining a lifetime metric for at least a portion of a display being used using a lifetime model;

determining whether to control the at least a portion of the display based on the lifetime metric; and

identifying at least one display control option using a usage model in response to determining to control the at least a portion of the display.

21. (Original) The method of claim 20, further comprising:

implementing the at least one display control option to increase the remaining life of the at least a portion of the display.

22. (Original) The method of claim 20, wherein the lifetime model includes an estimation of the lifetime of the at least a portion of the display.

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profiling use of at least one of the display and one or more displays similar to the display to establish the usage model.

24. (Original) The method of claim 23, wherein profiling comprises:

profiling use by a current user of the display.

25. (Original) The method of claim 23, wherein profiling comprises:

analyzing past use of at least one of the display and the one or more similar displays by a plurality of users.

26. (Currently Amended) An apparatus comprising:

means for displaying information, the means for displaying is being used to display information;

means for determining a lifetime metric associated with at least a portion of the means for displaying;

means for determining whether to control the at least a portion of the means for displaying based on the lifetime metric; and

means for identifying a plurality of display control options operable to increase a remaining life of at least a portion of the display in response to determining to control the at least a portion of the means for displaying.

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27. (Original) The apparatus of claim 26, further comprising:

lifetime model means for estimating a life of the means for displaying.

28. (Original) The apparatus of claim 26, further comprising:

usage model means for estimating usage of the means for displaying.

29. (Original) The apparatus of claim 27, further comprising:

means for evaluating the plurality of display control options using at least one of the lifetime model means and the usage model means; and

means for selecting at least one of the plurality of display control options based on the evaluation.

30. (Original) The apparatus of claim 29, further comprising:

means for implementing a selected one of the plurality of display control options.

31. (Currently Amended) Computer software embedded on a computer readable medium, the computer software comprising instructions of:

determining whether to control at least a portion of a display being used based on a lifetime metric;

identifying a plurality of display control options in response to determining to control the at least a portion of the display; and

selecting at least one of the display control options to control the display.

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32. (Original) The computer software of claim 31, further comprising instructions of:
implementing the selected display control option to increase a remaining life of the at
least a portion of the display.

33. (Original) The computer software of claim 31, wherein the instructions of identifying a
plurality of display control options comprises instructions of:
identifying a plurality of display control options using a usage model.

34. (Original) The computer software of claim 33, wherein the instructions of selecting at
least one of the display control options comprises instructions of:
selecting at least one of the display control options using at least one of the usage
model and a lifetime model.

35. (Currently Amended) A computer system comprising:
a display in use and operable to display a visual representation of information on the
display;
a processor operable to determine a plurality of control options for increasing the
remaining life of the display, each control option including parameters varying the visual
representation of information on the display; and
a display controller operable to receive parameters for one of the control options
identified by the processor to control the visual representation of information on the display.